

CLAIMS

We claim:

1. A communication system comprising:
 - eyewear comprising a microphone and a speaker;
 - 5 a wearer unit comprising a first transceiver and an interface unit coupled to the first transceiver, wherein the interface unit receives a first signal from the microphone and outputs a second signal to the speaker; and
 - 10 a base station comprising a second transceiver for exchanging wireless signals with the first transceiver, wherein the wireless signals comprise information carried by the first and second signals.
- 15 2. The system of claim 1 further comprising a neck strap for carrying the first and second signals.
3. The system of claim 1, wherein the wearer unit comprises a cellular telephone.
- 20 4. The system of claim 1, wherein the wearer unit comprises a personal digital assistant.
5. The system of claim 1, wherein the wearer unit further 25 comprises coded instructions stored in a memory coupled to a signal processor, and wherein the coded instructions control the signal processor to convert a voice command carried by the first signal into a control command.
- 30 6. The system of claim 5, wherein the control command controls a medical device.

7. The system of claim 1, wherein the base station further comprises an interface unit for exchanging signals between the base station and a telecommunication system.

5 8. The system of claim 1, wherein the wearer unit comprises
a removable memory unit for recording information carried by
the first signal.

9. The system of claim 1, wherein the base station comprises
10 a removable memory unit for recording information carried by
the first signal.

10. A method of using eyewear for two-way communication, comprising the acts of:

15 positioning a microphone and a speaker in eyewear;
receiving a voice carrying signal from the microphone;
transmitting the received voice carrying signal from a
wearer unit associated with the eyewear to a base
station coupled to a telecommunication system;
20 receiving a signal from the telecommunication system;
transmitting the received telecommunication system
signal to the wearer unit; and
using the speaker to output the transmitted
telecommunication system signal.

25 11. The method of claim 10, wherein the telecommunication

12. The method of claim 10, wherein the two-way
30 communication is between a surgeon wearing the eyewear and a person outside a surgical theater in which the surgeon is located.

13. The method of claim 10, wherein the wearer unit is a cellular telephone.

14. The method of claim 10, wherein the wearer unit is a
5 personal digital assistant.

15 A method of making a dictation transcript comprising the acts of:

10 receiving the dictation via a microphone positioned in eyewear;

storing the received dictation in a memory; and
transcribing the stored dictation.

16. The method of claim 15, wherein the eyewear is suitable
15 for use in a surgical theater.

17. The method of claim 15, wherein storing the received dictation comprises recording the received dictation on a removable memory module inserted in a wearer unit associated
20 with the eyewear.

18. The method of claim 15, wherein transcribing the stored dictation comprises the acts of:

25 using a computer to read the stored dictation; and

using the computer to transcribe the read dictation.

19. A method of controlling a device, comprising the acts of:

receiving a spoken command via a microphone positioned
30 in eyewear;

using a signal processor to convert the received spoken command to a machine command used to control the device; and

outputting the machine command to the device.

20. The method of claim 19, wherein the device is a medical device.

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21. The method of claim 19 further comprising the acts of:
receiving information from the device in response to the
machine command;
outputting the received information as a synthesized
voice via a speaker positioned in the eyewear.

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22. The system of claim 1, wherein the eyewear comprises a video display.

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23. A method of receiving data using eyewear, comprising the acts of:

coupling a wearer unit to the eyewear, wherein the eyewear comprises an output device; sending a first wireless signal from the wearer unit to a base station, the first wireless signal comprising a request for the data; receiving a second wireless signal from the base station to the wearer unit, the second wireless signal comprising the data; and using the output device to output the data.

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24. The method of claim 23, wherein the request is a digitized voice command, and wherein the data is converted from digital to analog form prior to output.

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25. The method of claim 23, wherein the output device is a speaker.

26. The method of claim 23, wherein the output device is a video display.
27. The method of claim 23, further comprising generating 5 the first wireless signal if the wearer unit enters a communication range of the base station.

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